

QF01/0408-4.0E	Course Plan for Bachelor program - Study Plan Development and Updating Procedures/ Mathematics Department
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Study plan No.	2021-2022		University Specialization		Bachelor of Mathematics	
Course No.	0101462		Course name		Practical Education in Teaching Mathematics	
Credit Hours	3		Prerequisite/ Co-requisite		Methods of Teaching Mathematics	
Course type	<input type="checkbox"/> MANDATORY UNIVERSITY REQUIREMENT	<input type="checkbox"/> UNIVERSITY ELECTIVE REQUIREMENTS	<input type="checkbox"/> FACULTY MANDATORY REQUIREMENT	<input type="checkbox"/> Support course family requirements	<input checked="" type="checkbox"/> Mandatory requirements	<input type="checkbox"/> Elective requirements
Teaching style	<input type="checkbox"/> Full online learning		<input checked="" type="checkbox"/> Blended learning		<input type="checkbox"/> Traditional learning	
Teaching model	<input type="checkbox"/> 1 Synchronous: 1 asynchronous		<input checked="" type="checkbox"/> 2 face to face : 1 asynchronous		<input type="checkbox"/> 2 Traditional	

Faculty member and study divisions' information (to be filled in each semester by the subject instructor)

Name	Academic rank	Office No.	Phone No.	E-mail	
Division number	Time	Place	Number of students	Teaching style	Approved model

Brief description

This course follows the strategy of microteaching in order to develop students' abilities at class management; consequently, each student will be allowed to perform practical demonstrations of teaching mathematics in class. Afterwards, students will engage in dialogues and discussions regarding their practical presentations of mathematics lessons. Overall, this class develops students' strategies in teaching mathematics and conducting real assessment, as well as the practical application of such strategies in class.

Learning resources

Course book information (Title, author, date of issue, publisher ... etc)	1. Mathematics Curriculum and Teaching Methods. Ibrahim Aqilan, Dar Al Masirah for Publishing, 3rd Edition, 2018 2. Classroom Administration. Haroun, Ramzi Fathi, Amman, Jordan: Dar Wael for Publishing, 2013 3. The Effectiveness of Micro-teaching for Mathematics Teachers. Sultan, Khalil, Um Al-Qura University, Riyadh, 2012. 4. Mathematics books for the basic stage. Ministry of Education, Jordan 2021/2022. 5. Articles, international research and applied studies				
Supportive learning resources (Books, databases, periodicals, software, applications, others)	1- Teaching mathematics to all children, William Obeid, 4th Edition, 2015. 2- School mathematics curricula, Farid Abu Zina, 3rd Edition, Amman, 2013.				
Supporting websites	https://www.cbmsweb.org/the-mathematical-education-of-teachers				
The physical	<input checked="" type="checkbox"/> Class	<input type="checkbox"/> labs	<input checked="" type="checkbox"/> Virtual	<input type="checkbox"/> Others	

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environment for teaching	room		educational platform	
Necessary equipment and software				
Supporting people with special needs				
For technical support				

Course learning outcomes (S= Skills, C= Competences K= Knowledge,)

No.	Course learning outcomes	The associated program learning output code
Knowledge		
K1	Knowing the components of the educational system in teaching mathematics and their role in achieving educational outcomes	MK1
K2	Differentiate between modern teaching and traditional teaching	MK1
K3	Define the micro-teaching method and its advantages	MK2
K4	Define the theory of multiple intelligences and its role in teaching mathematics	MK2
K5	Mention the methods and tools of the multi-assessment	MK3
Skills		
S1	Training sessions of school mathematics topics using the micro-teaching strategy	MS1
S2	Employing different mathematics teaching strategies in real lessons	MS2
S3	Employing multiple calendar strategies in calendar tools	MS2
Competences		
C1	Develop the competence of planning for teaching at its multiple levels and mastery of sub-skills such as formulating aims and selecting content, activities and teaching aids.	MC 01
C2	Valuing the role of practical education in raising the level of the mathematics teacher from an educational point of view	MC 02

Mechanisms for direct evaluation of learning outcomes

Type of assessment / learning style	Fully electronic learning	Blended learning	Traditional Learning (Theory Learning)	Traditional Learning (Practical Learning)
Midterm exam	30%	30%	40%	30%
Participation / practical applications	0	0	10%	30%
Asynchronous interactive activities	30%	20%	0	0
Final exam	40%	50%	50%	40%

Schedule of simultaneous / face-to-face encounters and their topics

Week	Subject	learning style	Reference
1	General introduction to classroom management. Classroom management concept. Classroom landmarks. Classroom contradictions	Lecture	14-30 Ref 2
2	Student behavior management. The main assumptions related to human behavior	Lecture	31-70 Ref 2

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	and the criteria for judging behavior.		
3	Traditional teaching in mathematics versus modern teaching. Challenges facing a math teacher. Traits of a successful math teacher.	Lecture	17-30 Ref 3
4	Practical lessons explaining constructivist versus behavioral learning.	Lecture	International articles and research papers
5	A study plan for a mathematical subject for a school class that takes into account: Educational objectives and levels, mathematical content, teaching strategies, methods, activities and evaluation.	Lecture	104-114 Ref 1
6	Micro-teaching concept. Micro-teaching goals. The advantages of micro-teaching (providing practical lessons in teaching mathematics).	Lecture	121-130 Ref 3
7	The theory of multiple intelligences and learning mathematics. Practical mathematical situations that simulate the theory of multiple intelligences.	Lecture	International articles and research papers
8	Students present class sessions from the basic and secondary education levels. Discuss quotas and identify (strengths and weaknesses). Provide feedback to the student (teacher) by his colleagues.	Lecture	Practical presenting by students
9	Midterm exam 30% Showing films (classroom lessons) for teachers who are experts in teaching mathematics. Students (teachers) discuss the presented educational situations.	Lecture	Videos recorded for practical classroom lessons
10	Presenting students of lessons from the basic and secondary levels. Discuss the presented situations and identify strengths and weaknesses.	Lecture	Practical presenting by students
11	Visit a nearby school and attend some math classes. Student-teachers write down their observations about the field visits. Each student (teacher) writes a report on the field visits.	Lecture	School visits
12	Working on activating the (professional fellowship) by conducting a workshop (at the university) for mathematics teachers in the neighboring university schools to: Discuss the difficulties facing the mathematics teacher and suggest solutions for that. Presentation of some mathematics teachers success stories during their teaching experiences.	Lecture	Workshops
13	Authentic assessment. Authentic assessment vs traditional assessment. Authentic assessment tools.	Lecture	International articles and research papers
14	Students (teachers) present lessons to their colleagues in which they implement Authentic assessment strategies.	Lecture	Practical presenting by students

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15	Students prepare achievement tests according to the specification table. Discuss the exams prepared by the students.	Lecture	Practical presenting by students
16	Final Exam		

Schedule of asynchronous interactive activities (in the case of e-learning and blended learning)

Week	Task / activity	Reference	Expected results
1	Interactive Activity 1: Presenting various classroom management practices.	Ref 1	Self-reading and Discussion
2	Interactive Video 1	E-learning	Discussion in the class
3	Homework1: On the subjects studied on the first three weeks	(Lecture notes and Ref.1)	Submit a pdf or word sheet
4	Quiz 1	All subjects were studied on the first three weeks	Submitting on the E-learning
5	Interactive Activity 2: Traditional Teaching in Mathematics vs. Modern Teaching.	Internet sources and the other Supportive learning resources	Presentation
6	Interactive Video 2: Strategies for Teaching Elements of Mathematical Content	Internet sources and the other Supportive learning resources + Ref 1	Discussion in the class
7	Homework 2	(Lecture notes and Ref.1)	Submit a pdf or word sheet
8	Interactive Activity 3: Make a 5-10 minute presentation on a topic in the lesson plan	Internet sources and the other Supportive learning resources	Talk and feedback
9	Self-reading	A related topic that enriches the previous topics	Discussion in the class
10	Interactive Video 3	Ref.1	Discussion in the class
11	Interactive activity 4: Make a presentation of 5-10 minutes, share one of the topics of the school mathematics books	Math school books	Discussion in the class
12	Extra reading	Ref.2	Making a summary
13	Quiz 2	On the subjects studied on the subject studied after midexam	Submitting on the E-learning
14	Interactive video 4: The Authentic assessment.	Internet sources and the other Supportive learning resources	Discussion in the class
15	Interactive activity 4: Make a test according to the specification table.	School math books	Talk and feedback
16	Final Exam	-	